



National Law Enforcement and Corrections Technology Center – Rocky Mountain Region



CAPRAD

TRAINING SYSTEM

COMPUTER ASSISTED PRE-COORDINATION
RESOURCE AND DATABASE SYSTEM



University of Denver
Research Institute



WELCOME TO PUBLIC SAFETY SPECTRUM MANAGEMENT

[Home](#)

[700 Mhz](#)

[4.9 GHz](#)

[SIEC](#)

[Ass](#)

CAPRAD

System

Overview

Virginia Interoperable Communications Conference

Virginia Beach, VA

October 5, 2005



The Need for INFORMATION

The Pre-coordination database for 700 MHz frequencies was built for Regional Planning Committees at the request of:

The PSCC (Public Safety Communications Council) Coordinators

- AASHTO (American Association of State Highway and Transportation Officials)
- APCO (Association of Public-Safety Communications Officials-International, Inc.)
- FCCA (Forestry Conservation Communications Association)
- IMSA (International Municipal Signal Association)

NPSTC (National Public Safety Telecommunications Council)



The Need for INFORMATION

Expansion and Enhancement of the database has occurred at the request of:

- The Regional Planning Committees
- Statewide Interoperability Planning Committees
- Users from across the country



Who has access to the database?

- Regional Planning Committees
- The PSCC (Public Safety Communications Council)
Coordinators
 - AASHTO (American Association of State Highway and Transportation Officials)
 - APCO (Association of Public-Safety Communications Officials-International, Inc.)
 - FCCA (Forestry Conservation Communications Association)
 - IMSA (International Municipal Signal Association)
- Statewide Interoperability Executive Committees (SIEC)
- Applicants / Proxy
- Authorized special users
- Public [view only in 700 MHz planning module]

How is the database used?

- **Frequency Pre-allotment** (700MHz; 4.9 GHz; Interoperability channels)
 - National plan for proposed spectrum pre-allotment (700 MHz)
 - Modification options based on specific regional needs
- **Development of State or Regional Plans**
 - Assist in selection of “usable” frequencies
 - Resources for planning and managing the public safety spectrum
 - Accessible “living matrix” of planned channel use
 - Storage of Regional Planning documents
 - Mapping of planned usage and licensed sites
- **Application for Frequency Use**
 - FCC 601 forms
 - Attachments library
- **Communications Assets Inventory**
 - Inventory management / tracking
 - Attachments library



What capabilities and features are included?

- Web Site Access
 - Informational front page
 - Secure Access for Registered Users
 - Defined User Privileges
- Interactive Relational Databases
- Frequency Availability “Notebook”
- Interface to PSCC Automated Systems (via ftp)
 - Electronic Batch Format (EBF) protocol for data transfer
 - Nightly Data Comparison and Update

What capabilities and features are included?

(continued)

- On-Line Help Facilities
 - On-line users manual, context sensitive help, “frequently asked questions”, planning resource documents/templates
- Supplemental Information Storage
 - Regional / State Frequency Plans
 - Lists of Television Channels with Potential Impact
 - Final FCC Report and Order Frequency Table
 - RPC Chairpersons and Other Contacts
 - RPC Frequency Limitations by Region and Adjacent Region

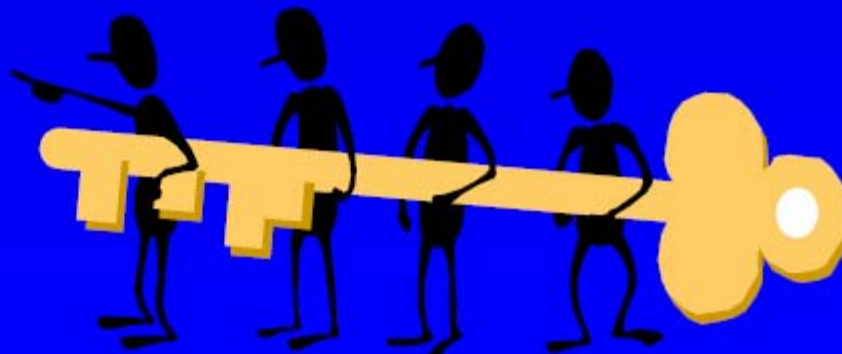
System Features

- Graphical User Interface
- Standard and ad hoc report capabilities
 - System Usage
 - Other Reports
- 24x7 operation
 - UPS
 - Mirrored Operation
 - Failsafe transfer to backup system
- Automated System and Data Backup
- Multi-Level Security



CAPRAD IS:

- A tool to facilitate regional planning.
- An instrument to support inter-regional communications.
- A means to enhance inter-regional cooperation.



CAPRAD IS NOT:

- A replacement for careful regional planning.
- A substitute for inter-regional communications.
- A substitute for inter-regional cooperation.
- Magic
 - it can only do what it is told to do with the information you give it.
- Self Maintaining
 - The Regional Planning Committee is the PRIMARY data manager and user.
 - YOU must ensure data is updated and correct.





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WELCOME TO PUBLIC SAFETY SPECTRUM MANAGEMENT

[Home](#)

[700 Mhz](#)

[4.9 GHz](#)

[SIEC](#)

[Assets](#)

RESOURCE LINKS

- [AASHTO](#)
- [APCO](#)
- [FCC](#)
- [FCCA](#)
- [IMSA](#)
- [NJ CommTech](#)
- [NLECTC](#)
- [NPSTC](#)
- [SAFECOM](#)

PUBLIC INFORMATION

- [Notices](#)
- [Documents](#)
- [Spectrum](#)
- [Regional Plans](#)

700 MHz Frequency Database System

The FCC has allocated 24 MHz of spectrum for public safety services at 764-776 MHz and 794-806 MHz (referred to as the 700 MHz band). On August 6, 1998, the FCC adopted a First Report and Order and Third Notice of Proposed Rule Making that established a band plan and service rules for this spectrum. That plan was later modified three times with the current Fourth Memorandum Opinion and Order serving as the basis for current spectrum use and rules. The following table breaks out how the spectrum is planned on being allocated.

4.9 GHz Frequency Database System

The telecommunications industry is on the verge of an exciting development in regards to providing classic digital services in the mobile environment. The changes will provide a list of services, applications, and features that will greatly impact the manner in which public safety is able to provide services. The potential of convergence of classic digital services will provide an opportunity previously unprecedented for public safety.

SIEC Database System

Public safety officials throughout **the nation** are able to communicate using interoperable technology in real time and on demand.

For purposes of the SIEC vision the following terms are defined as: Real time: There should be no noticeable delay between the time information is sent and when it is received. On demand: Immediately available when mission requires. Must be available under any circumstances.

WELCOME
LOGIN HERE

GO

TRAINING
LOGIN HERE

GO



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RESOURCE AND DATABASE SYSTEM

[Login](#) | [FAQ](#) | [Help](#)



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00 MHz Public Safety Spectrum

[Home](#)

[700 MHz](#)

[4.9 GHz](#)

[SIEC](#)

[Assets](#)

PLANNING

APPLICATIONS

RESOURCE LINKS

- [AASHTO](#)
- [APCO](#)
- [FCC](#)
- [FCCA](#)
- [IMSA](#)
- [NJ CommTech](#)
- [NLECTC](#)
- [NPSTC](#)
- [SAFECOM](#)

SITES OF INTEREST

- [Regional Planning](#)
- [700 MHz Regions](#)

700 MHz Frequency Database System

The FCC has allocated 24 MHz of spectrum for public safety services at 764-776 MHz and 794-806 MHz (referred to as the 700 MHz band). On August 6, 1998, the FCC adopted a First Report and Order and Third Notice of Proposed Rule Making that established a band plan and service rules for this spectrum. That plan was later modified three times with the current Fourth Memorandum Opinion and Order serving as the basis for current spectrum use and rules. The following table breaks out how the spectrum is planned on being allocated.

Designated Purpose	Amount of Spectrum	Narrowband (6.25 kHz)	WideBand (50kHz)
General Use	12.5 MHz (52.1%)	7.7 MHz (1232 Channels)	4.8 MHz (96 Channels)
Interoperability	2.6 MHz (10.8%)	0.8 MHz (128 Channels)	1.8 MHz (36 Channels)
Secondary Trunking	0.2 MHz (0.8%)	0.2 MHz (32 Channels)	-0-
State License	2.4 MHz (10.0%)	2.4 MHz (384 Channels)	-0-
Low Power	0.3 MHz (1.3%)	0.3 MHz (48 Channels)	-0-
Reserve	6.0 MHz (25.0%)	0.6 MHz (96 Channels)	5.4 MHz (108 Channels)
Total	24 MHz (100%)	12 MHz (1920 Channels)	12 MHz (240 Channels)



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Login | FAQ | Help



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4.9 GHz Public Safety Spectrum

Home

700 Mhz

4.9 GHz

SIEC

Assets

PLANNING

RESOURCE LINKS

- [AASHTO](#)
- [APCO](#)
- [FCC](#)
- [FCCA](#)
- [IMSA](#)
- [NJ CommTech](#)
- [NLECTC](#)
- [NPSTC](#)
- [SAFECOM](#)

SITES OF INTEREST

- [4.9 GHz Spectrum Whitepaper](#)
-
- [NPSTC 4.9 GHz National Regional Plan Guidelines](#)
-
- [4.9 Licensing Rules Summary](#)
-
- [NPSTC Comments to 4.9 GHz](#)

4.9 GHz Frequency Database System

The telecommunications industry is on the verge of an exciting development in regards to providing classic digital services in the mobile environment. The changes will provide a list of services, applications, and features that will greatly impact the manner in which public safety is able to provide services. The potential of convergence of classic digital services will provide an opportunity previously unprecedented for public safety.

The FCC has allocated a significant amount of spectrum at 4.9 MHz for just this type of implementation. There are public safety groups working closely with the manufacturing community, federal interests, and standards bodies to create a "tweaked" 802.11 series standard that includes all of the functionality of Wi-Fi, but operating at a frequency that is exclusive to public safety.

The potentials are enormous. Public safety technology usually takes a back seat to the exploding commercial market in the wireless world. This translates to significant cost to public safety because public safety can not provide a market nearly as large as the commercial market. In this case, public safety can take advantage of the development in the commercial market and with very little alteration, make it work in our own field.

For those of us in the public safety environment, all of those high tech applications you have heard of and perhaps wished for and have actually seen in the commercial world, may now be within grasp. Not only technically, but also financially.



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RESOURCE AND DATABASE SYSTEM

Login | FAQ | Help



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Statewide Interoperability Spectrum

Home

700 Mhz

4.9 GHz

SIEC

Assets

PLANNING

APPLICATIONS

RESOURCE LINKS

- AASHTO
- APCO
- FCC
- FCCA
- IMSA
- NJ CommTech
- NLECTC
- NPSTC
- SAFECOM

SITES OF INTEREST

- SIEC Home
- Inventory Report
- Phase I
- Prim Statewide Public Safety
Communication Systems Plan
- Focusing on Emergency
Communication Systems
Interoperability

SIEC Database System

Public safety officials throughout **the nation** are able to communicate using interoperable technology in real time and on demand.

For purposes of the SIEC vision the following terms are defined as:

Real time: There should be no noticeable delay between the time information is sent and when it is received.

On demand: Immediately available when mission requires. Must be available under any circumstances.

Mission Statement

In the interests of public safety, the State Interoperability Executive Committee (SIEC) pursues and promotes statewide interoperability policies and standards, which will ensure interoperable emergency communications.



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RESOURCE AND DATABASE SYSTEM



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Communications Assets Management

Home

700 Mhz

4.9 GHz

SIEC

Assets

Assets Management Database System

RESOURCE LINKS

- [AASHTO](#)
- [APCO](#)
- [FCC](#)
- [FCCA](#)
- [IMSA](#)
- [NJ CommTech](#)
- [NLECTC](#)
- [NPSTC](#)
- [SAFECOM](#)

Public agencies are under ever-increasing pressure to provide more infrastructure for growing populations while dealing with tighter and tighter budgets. To do both successfully requires:

- An accurate, easily understood picture of the assets needed
- Design and construction costs
- Current condition and maintenance schedules
- Repair or replacement expenses

Mission Statement

To build a reliable assets image in order to realize the greatest return on investment of public funds, you need a solid foundation of precisely gathered and intelligently analyzed data.

SITES OF INTEREST

[HS: Information Analysis & Infrastructure Protection](#)
[Executive Order: Asset Management](#)



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RESOURCE AND DATABASE SYSTEM

RPC7 Chair 1 | Log Out | FAQ | Help



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00 MHz Public Safety Spectrum

Home

700 Mhz

4.9 GHz

SIEC

Assets

SELECT REGION:

or Click Map
to Select Region

PLANNING

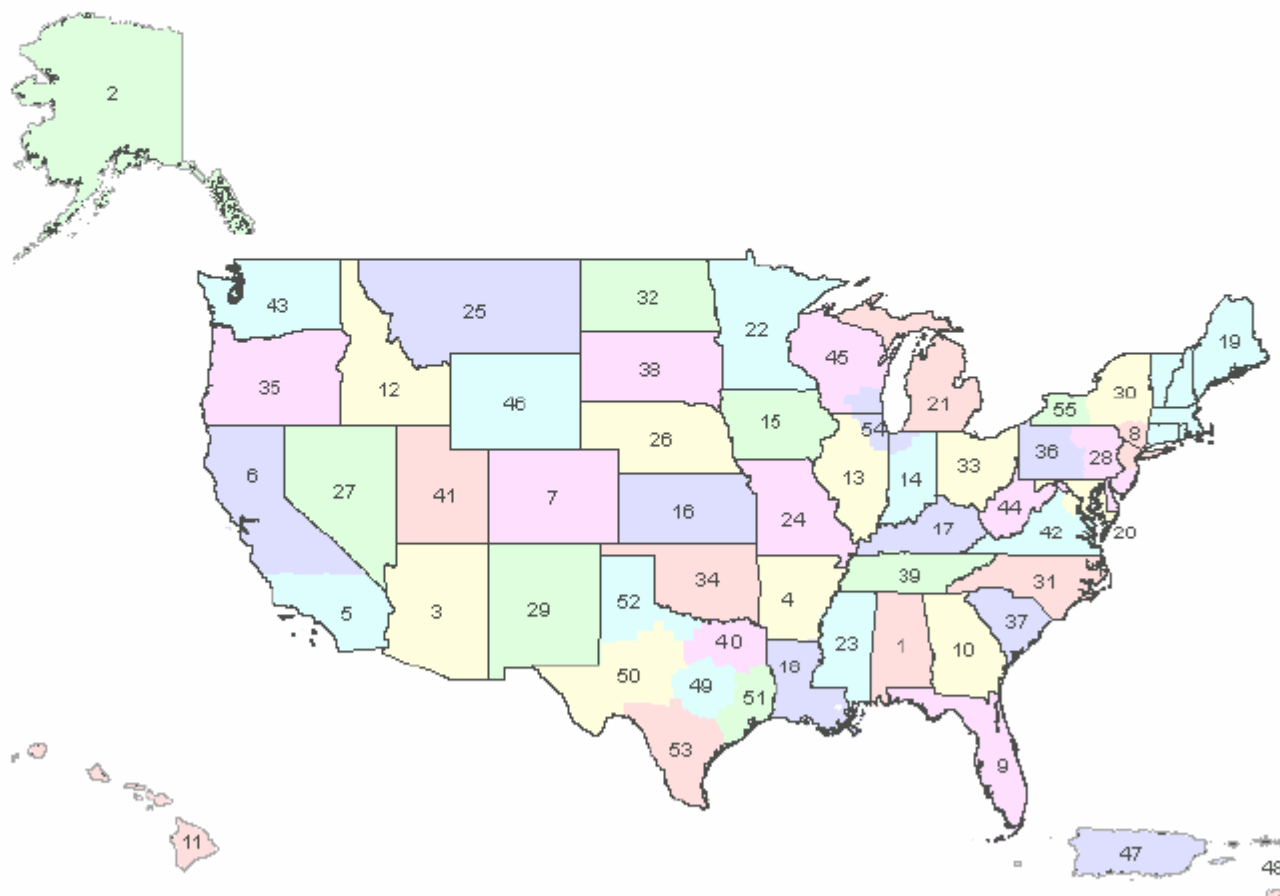
APPLICATIONS

RESOURCE LINKS

- AASHTO
- APCO
- FCC
- FCCA
- IMSA
- NJ CommTech
- NLECTC
- NPSTC
- SAFECOM

SITES OF INTEREST

- Regional Planning
- 700 MHz Regions



Contact

Help



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RESOURCE AND DATABASE SYSTEM

RPC7 Chair 1 | Log Out | FAQ | Help



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00 MHz Public Safety Spectrum

Home

700 Mhz

4.9 GHz

SIEC

Assets

REGION 7: Colorado

SELECT AREA: -Entire Region-

VIEW REGION

PLANNING

APPLICATIONS

NEW REGION

RESOURCES

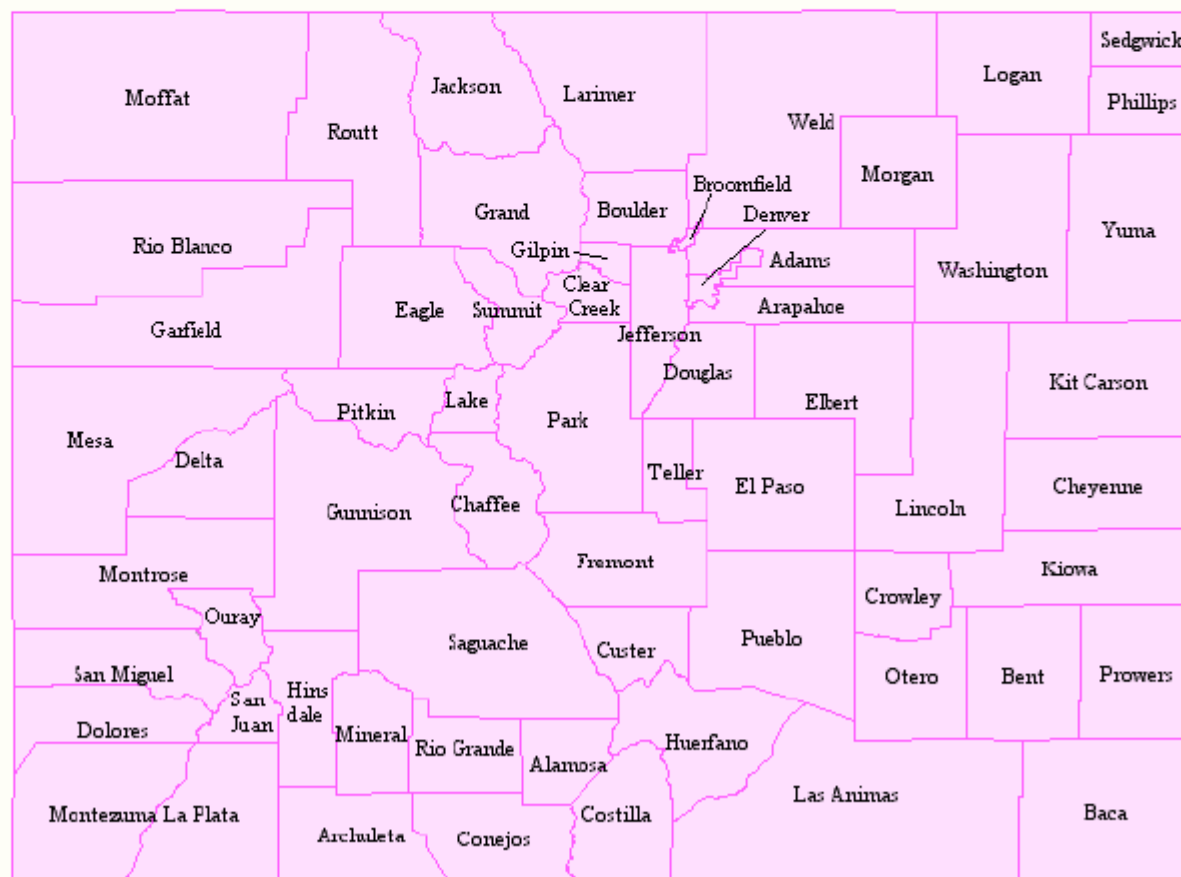
SELECT DATA

- Antenna Sites
- Channel Allotments
- TV Stations
- Admin. Info

GO

REGIONAL PLAN

- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents



NEW REGION

RESOURCES

SELECT DATA

- Antenna Sites
- Channel Allotments
- TV Stations
- Admin. Info

GO

REGIONAL PLAN

- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents



* New documents have been posted within the last 30 days

FCC Documents

Public Notices

[Acrobat File](#)

[Word File](#)

DA-02-3497 WT Docket NO. 02-378

Technical Reports

Generation of the National 700-MHz Public Safety Pool Allotments (Narrowband General Use Channel Set)

[Acrobat File](#)

Documentation of Methodology and Results

[Acrobat File](#)

Appendix B: Population, Area and Capacity Model Data

[County Contours](#)

County Contours in graphical format

Other Documents

White Papers

[Acrobat File](#)

700 MHz TV Clearing and its Impact on TV Viewership. Motorola, Inc. (11-11-03)

Slides

[Acrobat File](#)

CAPRAD Training Slides

4.9 GHz Information

[Word File](#)

Information on 4.9 GHz Public Safety Spectrum

[Acrobat File](#)

FINAL NPSTC 4.9 Guidelines Template for May 21 2004



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RPC7 Chair 1 | Log Out | FAQ | Help

00 MHz Public Safety Spectrum

Home 700 Mhz 4.9 GHz SIEC Assets

REGION 7: Colorado

SELECT AREA: -Entire Region-

VIEW REGION

PLANNING

APPLICATIONS

NEW REGION

RESOURCES

MAPPING

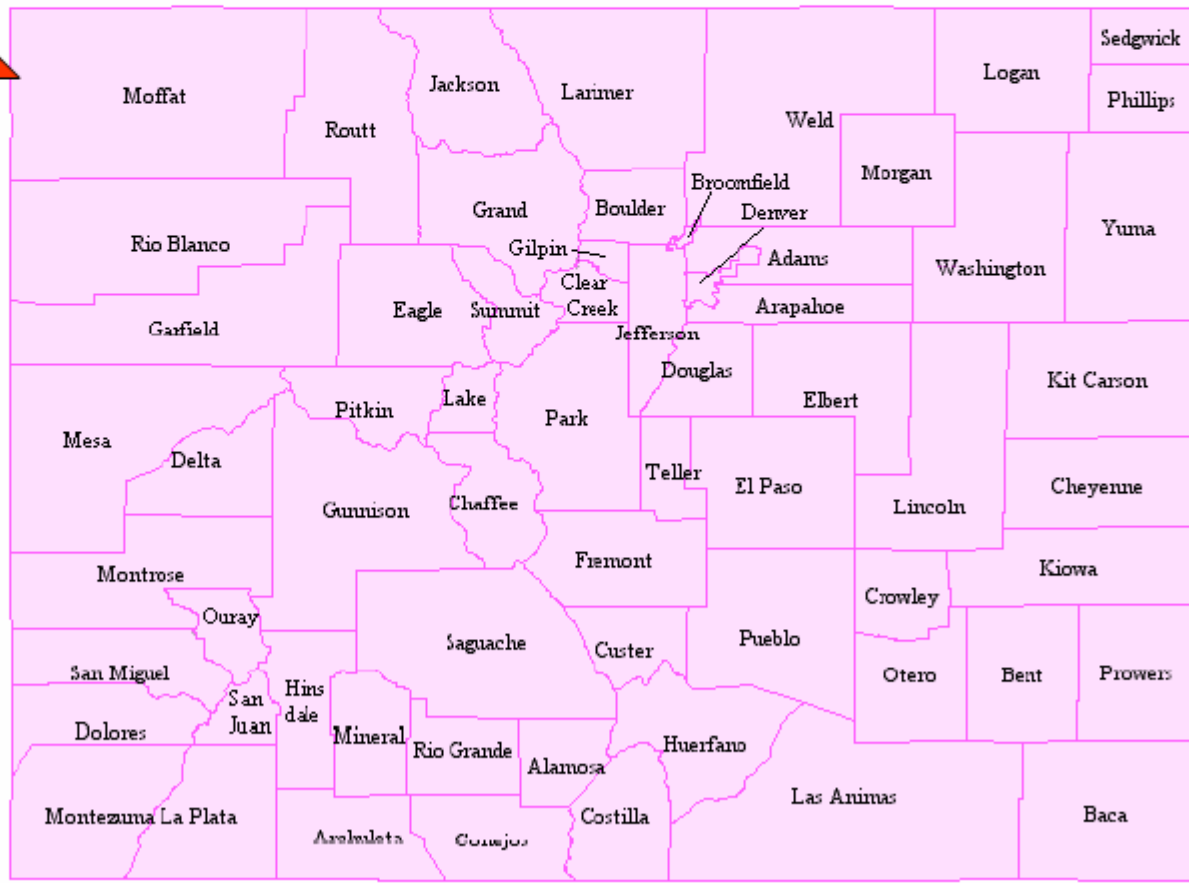
SELECT DATA

- Antenna Sites
- Channel Allotments
- TV Stations
- Admin. Info

GO

REGIONAL PLAN

- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents



Geo-coordinates

Apply

☐ Antenna Sites

F	?
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Ab
Cd

☒ Cities & Towns

?

☒ Roads

?

— — — —

☐ Railroads

Ab

☐ Water

?

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১৩	১৪

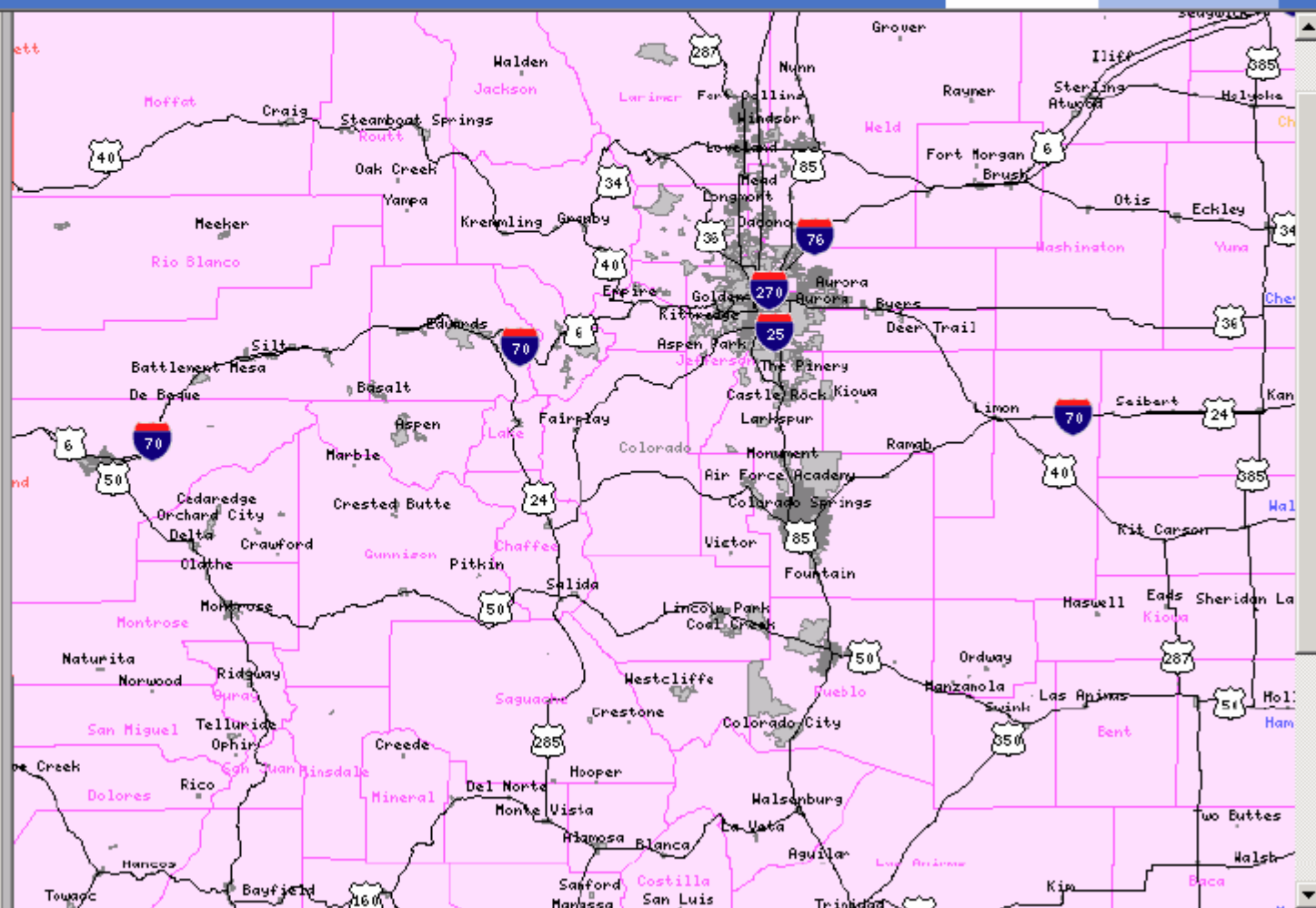
☐ Federal Lands

?

06

☒ Counties

F





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RESOURCE AND DATABASE SYSTEM

RPC7 Chair 1 | Log Out | FAQ | Help



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Research Institute



00 MHz Public Safety Spectrum

Home

700 Mhz

4.9 GHz

SIEC

Assets

REGION 7: Colorado

SELECT AREA: -Entire Region-

VIEW REGION

PLANNING

APPLICATIONS

Continental US

Alaska

Puerto Rico

Hawaii

Zoom Factor: 2 x

Zoom In Pan

Zoom Out Query

Geo-coordinates

Apply



Antenna Sites

F ?



Cities & Towns

?



Roads

?



Railroads



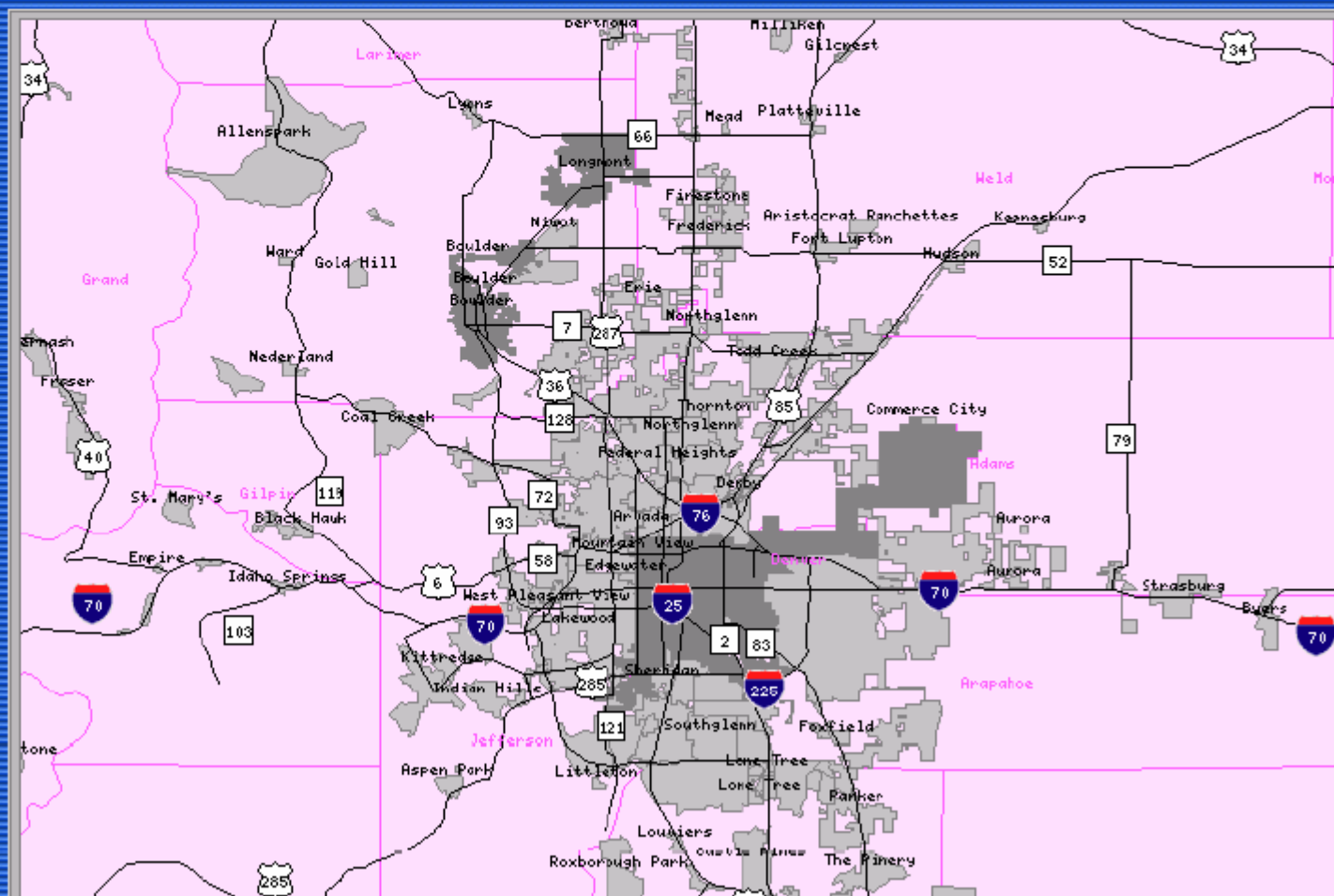
Water

?



Federal Lands

?





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00 MHz Public Safety Spectrum

Home

700 Mhz

4.9 GHz

SIEC

Assets

Filter - Microsoft Internet Explorer

TV Sites

(ch 62-69): ☐+ Contour: ☐

Service:

all

Status:

all

Channel(s):

Antenna Sites

(700.00-807.00 MHz): ☐+ County: ☐

Bandwidth:

all

Class:

all

Base Frequency:

MHz

Mobile Frequency:

MHz

Save

Apply

☐ Antenna Sites

F ?

☒ Cities & Towns

?

☒ Roads

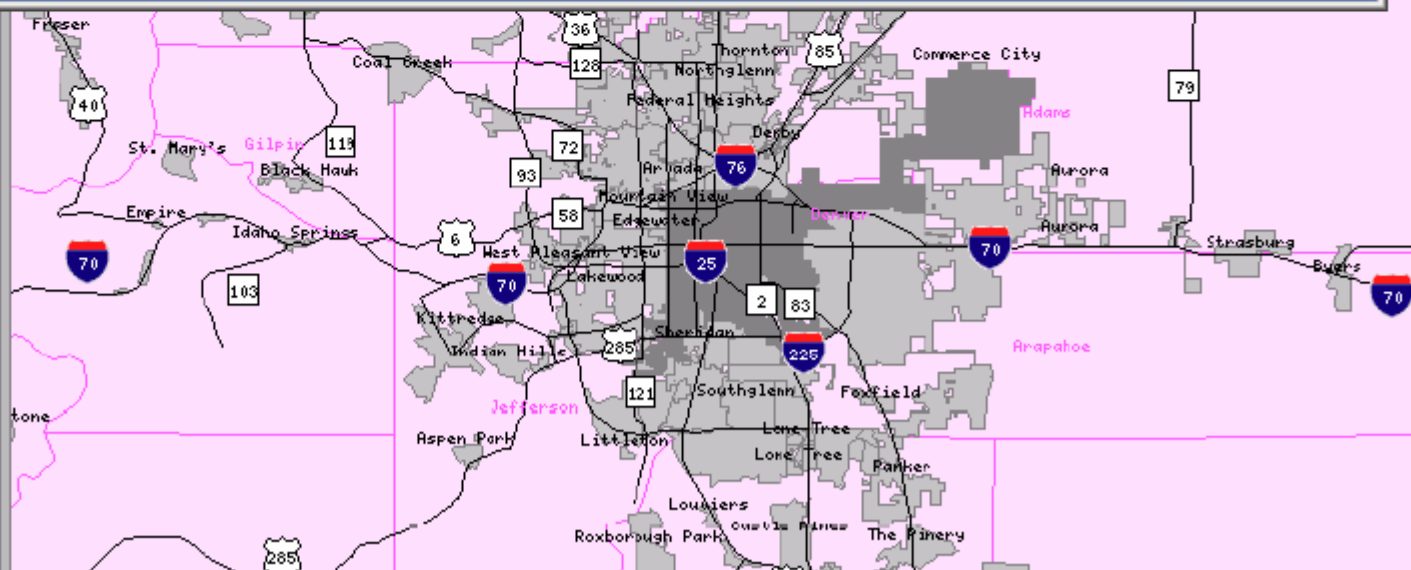
?

☐ Railroads☐ Water

?

☐ Federal Lands

?





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RESOURCE AND DATABASE SYSTEM

RPC7 Chair 1 | Log Out | FAQ | Help

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Research Institute

00 MHz Public Safety Spectrum

Home

700 Mhz

4.9 GHz

SIEC

Assets

REGION 7: Colorado

SELECT AREA: -Entire Region-

VIEW REGION

PLANNING

APPLICATIONS

Continental US

Alaska

Puerto Rico

Hawaii

Zoom Factor: 2 x

Zoom In

Pan

Zoom Out

Query

Geo-coordinates

Apply

☒ Antenna Sites

F ?

☒ Cities & Towns

?

☒ Roads

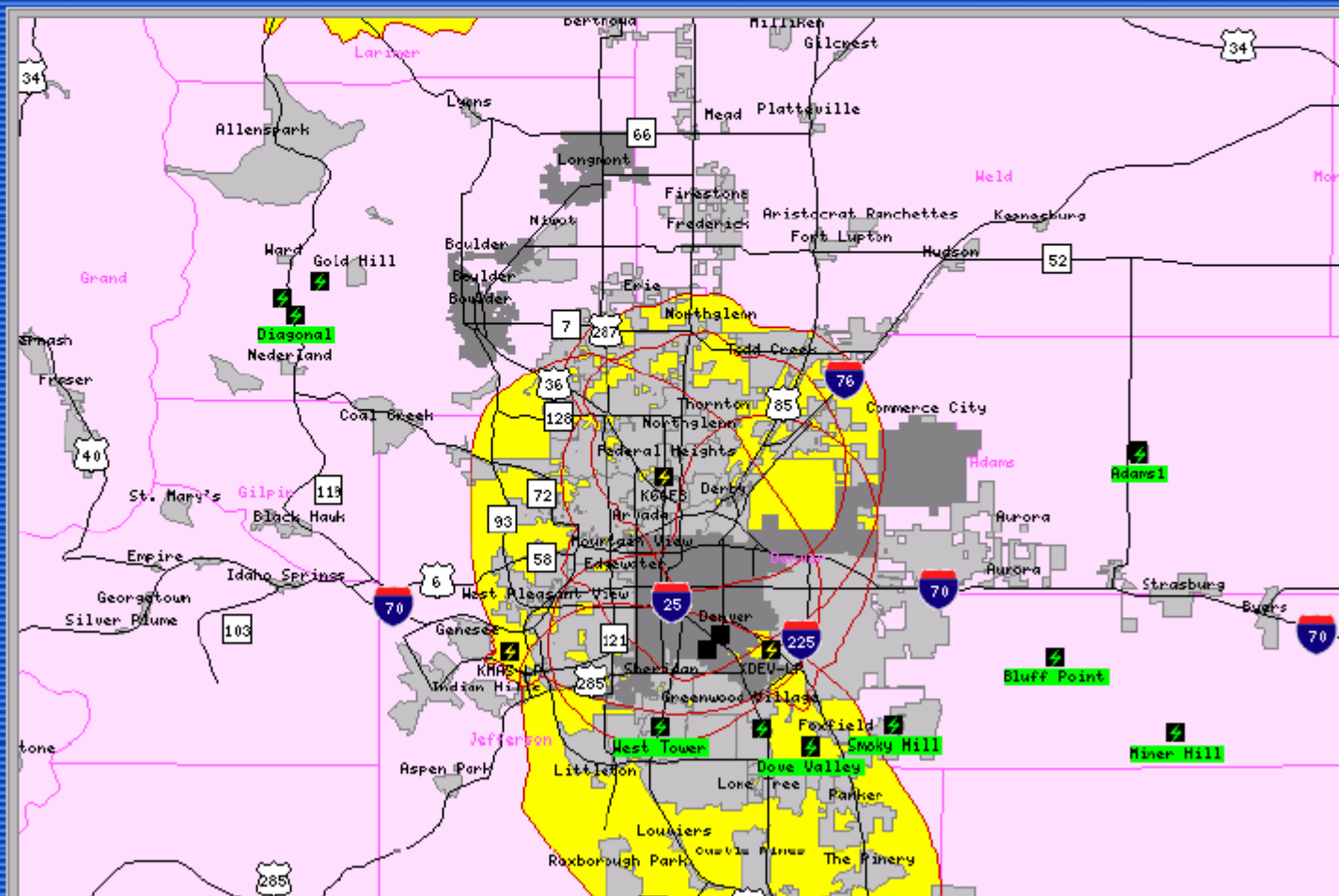
?

☐ Railroads☐ Water

?

☐ Federal Lands

?



General Query Information

State:	Colorado
County:	Jefferson

Antenna Information

TV (antenna):	KMAS-LP
ARN:	20010522AAE
Licensee:	TELEMUNDO OF STEAMBOAT SPRINGS COLO.
Channel:	63
Service:	LP
Status:	LIC
Longitude:	W 105°13'3"
Latitude:	N 39°40'23"

TV (in range):	KSBS-LP
ARN:	20000426AAI
Service:	LP

☐ Federal Lands

COORDINATION
SYSTEM

RPC7 Chair 1 | Log Out | FAQ | Help



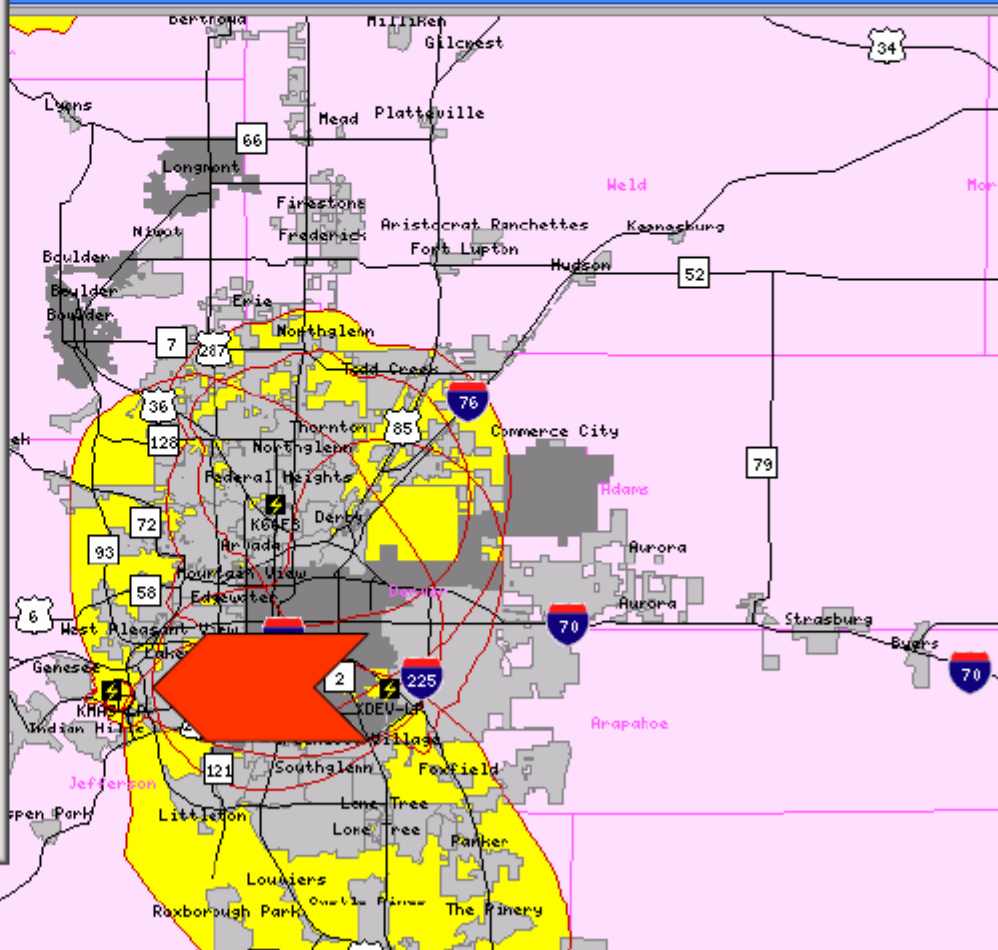
Home 700 Mhz 4.9 GHz SIEC Assets

CT AREA: -Entire Region-

VIEW REGION

PLANNING

APPLICATIONS



<http://www.teq-services.com:81/nlectrm/map/temp/query6...>







General Query Information

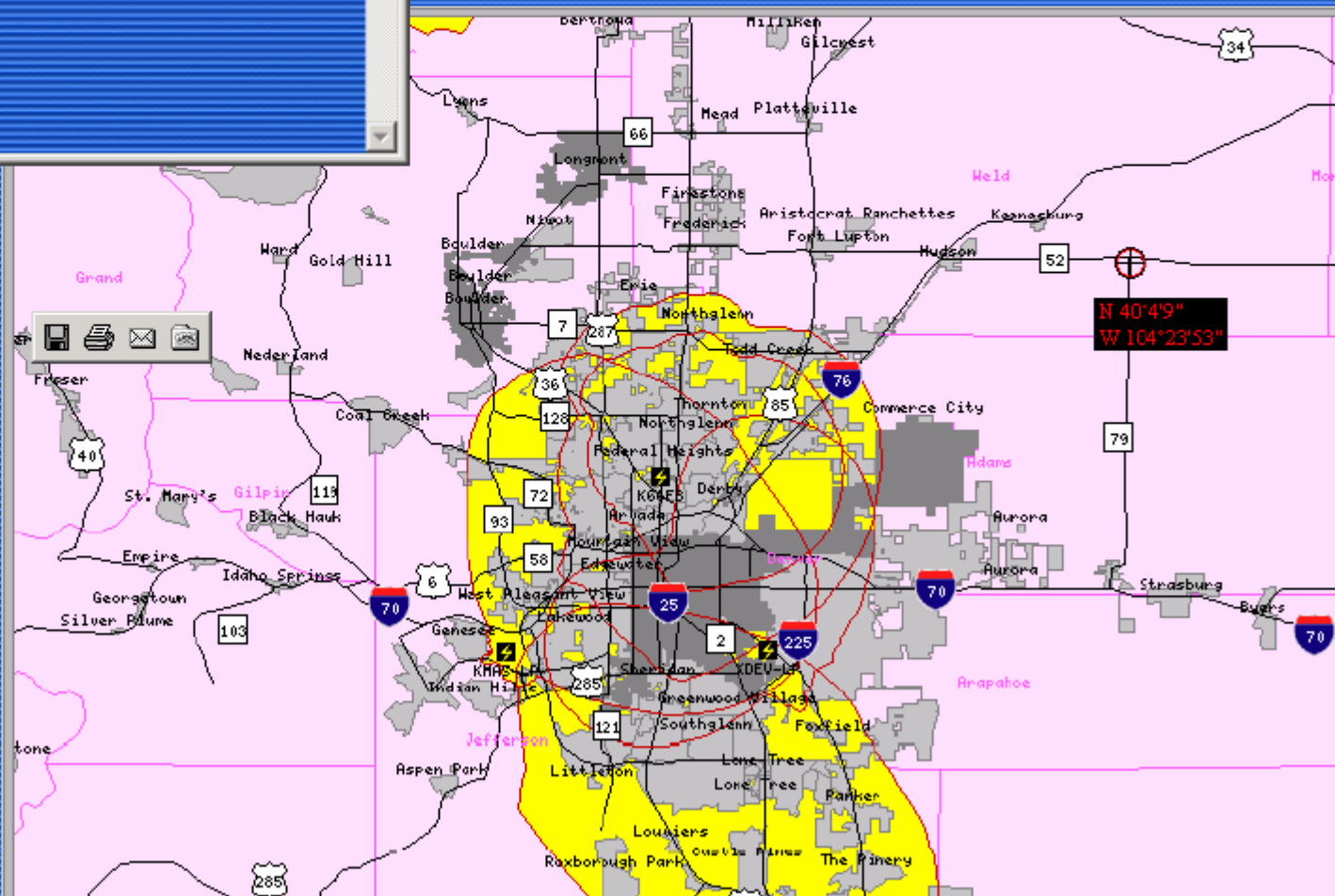
State:	Colorado
County:	Weld
Road:	State Route 52
Road:	State Route 79

Zoom Factor: 2 x

- ☐ Zoom In ☐ Pan
☐ Zoom Out ☐ Query
☒ Geo-coordinates

Apply

- | | | |
|--|--|-----|
|  | <input checked="" type="checkbox"/> Antenna Sites | F ? |
|  | <input checked="" type="checkbox"/> Cities & Towns | ? |
|  | <input checked="" type="checkbox"/> Roads | ? |
|  | <input type="checkbox"/> Railroads | |
|  | <input type="checkbox"/> Water | ? |
|  | <input type="checkbox"/> Federal Lands | ? |

COORDINATION
SYSTEM

RPC7 Chair 1 | Log Out | FAQ | Help

University of Denver
Research Institute

Home

700 Mhz

4.9 GHz

SIEC

Assets

CT AREA: -Entire Region-

VIEW REGION

PLANNING

APPLICATIONS

Federal Communications Commission

Universal Licensing System

License Search

License Search enables you to search for a wide range of licenses in the Universal Licensing System. The license search here provides access to the most basic attributes of a license. You can also specify more attributes combinations with the [Advanced Search](#) search within services like [DAS](#) using service-specific criteria. Please be aware that some combinations of search criteria may take a longer wait.

License Search

By Call Sign:

☐ All matches ☐ Exact matches only

[Advanced License Search](#)

Advanced

Want to search for licenses of any radio service code based on combinations of all license attributes?

[Advanced License Search](#)

Service-Specific

Want to search within a service using criteria relevant to that specific service?

[Aircraft](#)

[Amateur](#)

[Commercial/Restricted Permits](#)

Market-Based

Want to search for licenses in given markets?

[Market Based](#)

Search by section number, frequency range, markets, and more!

Admin. Info

REGIONAL PLAN

			Longitude NAD83		Antennas	Channels
	County Center	39/39/00.0N	104/23/00.0W			
<input type="checkbox"/>	Bluff Point	39/40/05.0N	104/30/06.0W	<input type="button" value="Edit"/>	ABB, ACC	105-108, 109-112
<input type="checkbox"/>	Centennial	39/35/42.0N	104/53/05.0W	<input type="button" value="Edit"/>	B234579, C236478	185-188
<input type="checkbox"/>	Deer Trail	39/35/43.0N	104/01/05.0W	<input type="button" value="Edit"/>	A1, A2, A3	
<input type="checkbox"/>	Dove Valley	39/34/35.0N	104/49/20.0W	<input type="button" value="Edit"/>	V22, V33, V44, V55, V66	105-108, 145-148, 149-152
<input type="checkbox"/>	Miner Hill	39/35/25.0N	104/20/35.0W	<input type="button" value="Edit"/>	M1, M2	105-108, 225-228
<input type="checkbox"/>	Smoky Hill	39/35/53.0N	104/42/46.0W	<input type="button" value="Edit"/>	H1, H2	185-188
<input type="checkbox"/>	West Tower	39/35/43.0N	105/01/05.0W	<input type="button" value="Edit"/>	S1, S2, S3, S4	149-152
Add:	<input type="text"/>	<input type="text"/>	<input type="text"/>			

Save changes

Navigation

RPC7 Chair 1 | Log Out | FAQ | Help

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Home 700 Mhz 4.9 GHz SIEC Assets

Area: Arapahoe County

PLANNING APPLICATIONS

7 - Colorado - Arapahoe County Antenna Sites

[Search FCC Database](#)



NEW REGION

RESOURCES

SELECT DATA

- Antenna Sites
- Channel Allotments
- TV Stations
- Admin. Info

GO

REGIONAL PLAN

- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents

Region 7 - Colorado Channel Allotment

County	Class	Band Width	FCC Channel Number	Base Frequency	Mobile Frequency	Notation
<u>Adams</u>	General Use	Voice 25KHz	241-244	765.512500	795.512500	
	General Use	Voice 25KHz	297-300	765.862500	795.862500	
	General Use	Voice 25KHz	373-376	766.337500	796.337500	
	General Use	Voice 25KHz	481-484	773.012500	803.012500	
	General Use	Voice 25KHz	533-536	773.337500	803.337500	
	General Use	Voice 25KHz	573-576	773.587500	803.587500	
	General Use	Voice 25KHz	621-624	773.887500	803.887500	
	General Use	Voice 25KHz	705-708	774.412500	804.412500	
	General Use	Voice 25KHz	877-880	775.487500	805.487500	
	Interoperability*	Voice 12.5KHz	7TAC66	765.143750		
	State License	Voice 12.5KHz	29-30	764.181250	794.181250	
	State License	Voice 12.5KHz	31-32	764.193750	794.193750	
	General Use	Data 50KHz	31	768.525000	798.525000	
<u>Alamosa</u>	General Use	Voice 25KHz	17-20	764.112500	794.112500	
	General Use	Voice 25KHz	97-100	764.612500	794.612500	

REGION 7: Colorado

[NEW REGION](#)

[RESOURCES](#)

SELECT DATA

- Antenna Sites
- Channel Allotments
- TV Stations
- Admin. Info

[GO](#)

REGIONAL PLAN

- [Status](#)
- [Comments](#)
- [Spectrum Summary](#)
- [Reports](#)
- [Plan Documents](#)

SELECT AREA: [VIEW REGION](#)

Region 7 - Colorado TV Stations

[Search FCC Database](#)

[TV Code Glossary](#)

County	Channel	Call Sign	Location	Latitude NAD83	Longitude NAD83
Adams County	66	K66FB	Denver	39°51'8"N	105°0'51"W
	66	K66FB	Denver	39°51'8"N	105°0'51"W
	69	KDEO-LP	Aurora	39°45'0"N	104°59'27"W
	69	KMAS-LP	Denver	39°44'57"N	104°59'52"W
Archuleta County	62	K62AP	Pagosa Springs	37°15'40"N	107°2'45"W
	66	K66AV	Sunetha/Nutria	37°11'36"N	107°5'31"W
Conejos County	67	K45GD	Romeo, Etc	36°51'25"N	106°1'12"W
	63	K63AN	Romeo, Etc.	36°51'25"N	106°1'12"W
	65	K65AS	Romeo, Etc.	36°51'25"N	106°1'12"W
Delta County	69	K69AO	Powderhorn	39°5'15"N	108°13'40"W
Denver County	66	DK66DK	Aurora-Denver	39°39'50"N	104°51'40"W
	66	DK66DK	Aurora-Denver	39°39'50"N	104°51'40"W
	62	KDEV-LP	Aurora	39°40'31"N	104°52'22"W
Dolores County	67	K32EY	Dove Creek	37°48'5"N	109°25'30"W



COMPUTER ASSISTED PRE-COORDINATION RESOURCE AND DATABASE SYSTEM



9 GHz Public Safety Spectrum

[Home](#)

700 Mhz

4.9 GHz

SIEC

Assets

SELECT REGION: Select Region

or Click Map
to Select Region

PLANNING

RESOURCE LINKS

➤ **AASHTO**

➤ APCO

➡ FCC

➡ FCCA

➤ **IMSA**

➤ [NIJ CommTech](#)

➡ NLECTC

NPSTC

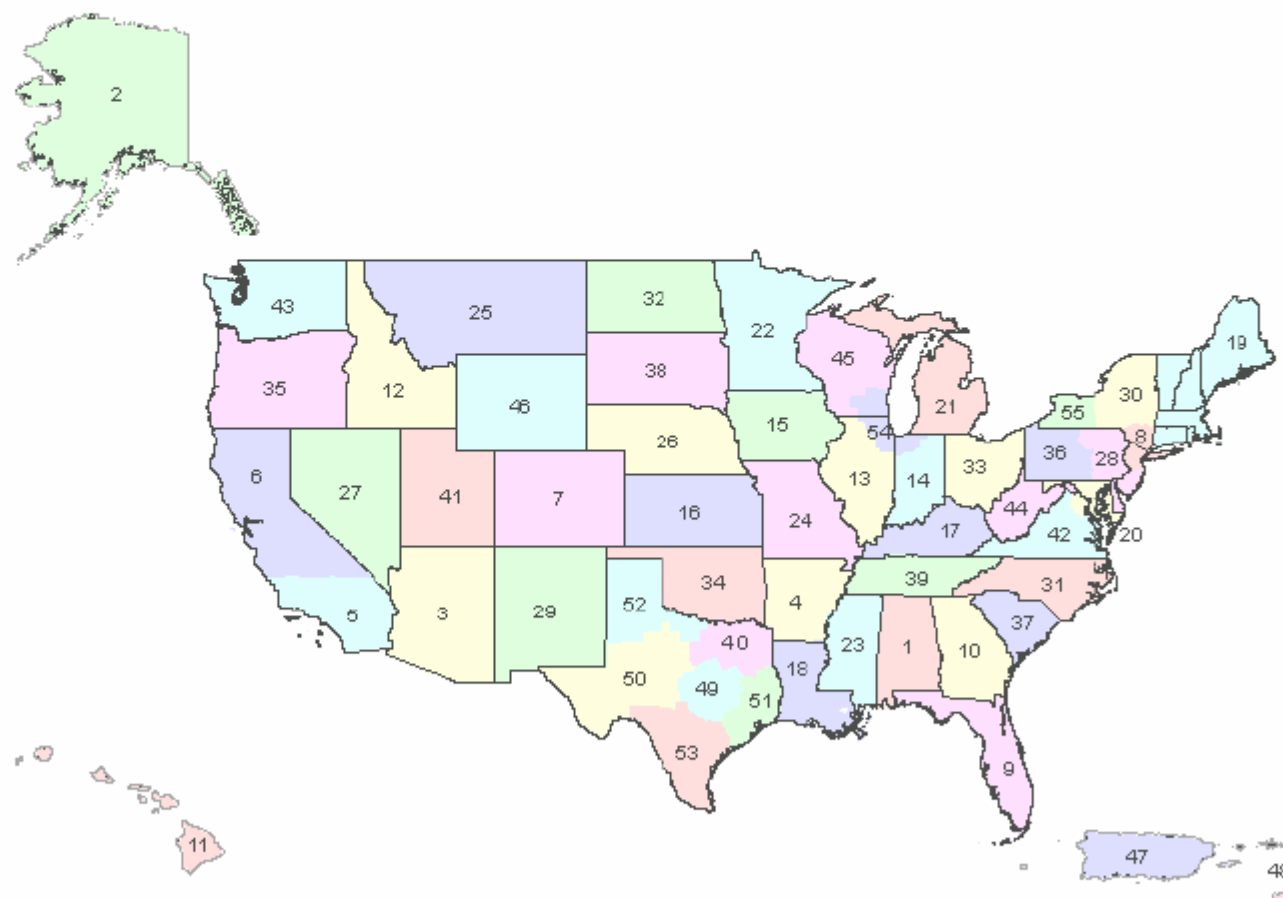
➤ SAFECOM

SITES OF INTEREST

1 GHz Spectrum Whitepaper

NPSTC 4.9 GHz National
Regional Plan Guidelines

4.9 Licensing Rules Summary

NPSTC Comments
to 4.9 Clz



COMPUTER ASSISTED PRE-COORDINATION
RESOURCE AND DATABASE SYSTEM



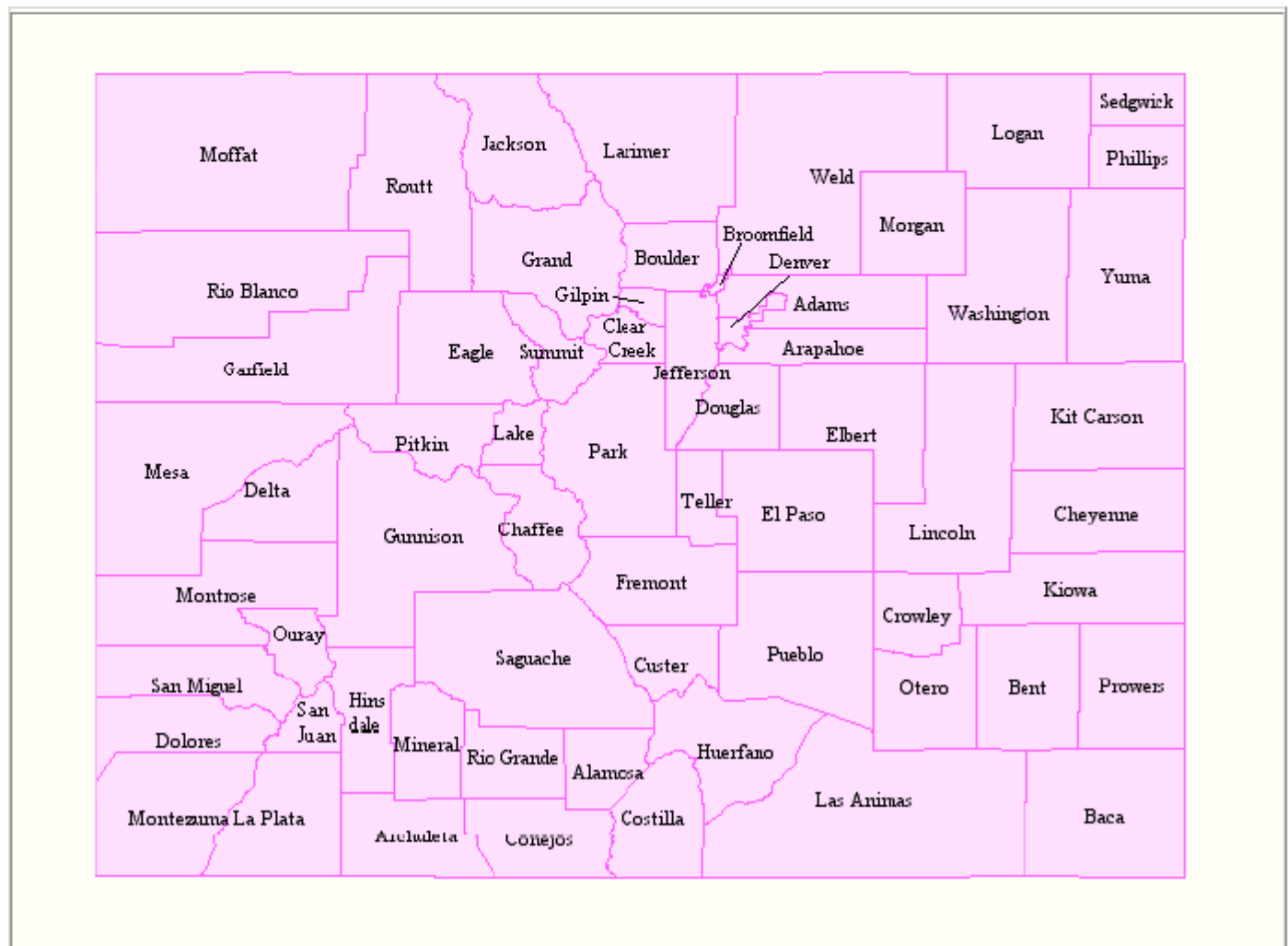
9 GHz Public Safety Spectrum

Home 700 Mhz 4.9 GHz SIEC Assets

REGION 7: Colorado SELECT AREA: -Entire Region- VIEW REGION PLANNING

NEW REGION
RESOURCES
SELECT DATA
Entity Groups
Entities
Locations
Channel Use
GO

REGIONAL PLAN
Status
Comments
Spectrum Summary
Reports
Plan Documents





COMPUTER ASSISTED PRE-COORDINATION
RESOURCE AND DATABASE SYSTEM



- NEW REGION
- RESOURCES
- SELECT DATA
- Entity Groups
- Entities
- Locations
- Channel Use
- GO

- REGIONAL PLAN
- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents

Back

Region 7 - Colorado - Denver County 4.9 GHz Entity Detail



[Link to FCC](#)

Entity Information

Attention: Dana Hansen/Jeff Thomas
Name: Denver Police Department, Electronic Engineering Bureau
Street: 1930 35th Street
City: Denver
State: CO
Telephone: 303-295-4381
FAX: 303-295-4386
Email: Hansend@ci.denver.co.us

Contact Information

Person (First,Last):
Organization:
Street:
City:
State:
Telephone:
FAX:
Email:

Jurisdiction: Other
Participant: Y

Save Cancel

Universal Licensing System

[FCC](#) > [WTT](#) > [ULS](#) > [Online Systems](#) > License Search

[FCC Site Map](#)

ULS License

Public Safety 4940-4990 MHz Band License - WPYR555 - Denver Police Department, Electronic Engineering Bureau

[HELP](#)

[New Search](#) [Printable Page](#) [Reference Copy](#) [Map License](#)

MAIN		ADMIN		LOCATIONS		FREQUENCIES	
Call Sign		WPYR555		Radio Service		PA - Public Safety 4940-4990 MHz Band	
Status		Active		Auth Type		Regular	
Dates							
Grant		10/07/2003		Expiration		10/07/2013	
Effective		10/07/2003		Cancellation			
Control Points							
1		1930 35th Street, DENVER, Denver, CO P: (303)295-4381					
Licensee							
Licensee ID SGIN		L00004250 000		FRN (View Ownership)		Type Governmental Entity	
Licensee							
Denver Police Department, Electronic Engineering Bureau				P:(303)295-4381			



Information
Last):
:



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RESOURCE AND DATABASE SYSTEM



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Statewide Interoperability Spectrum

Home 700 Mhz 4.9 GHz SIEC Assets

SELECT STATE:

or Click Map
to Select Region

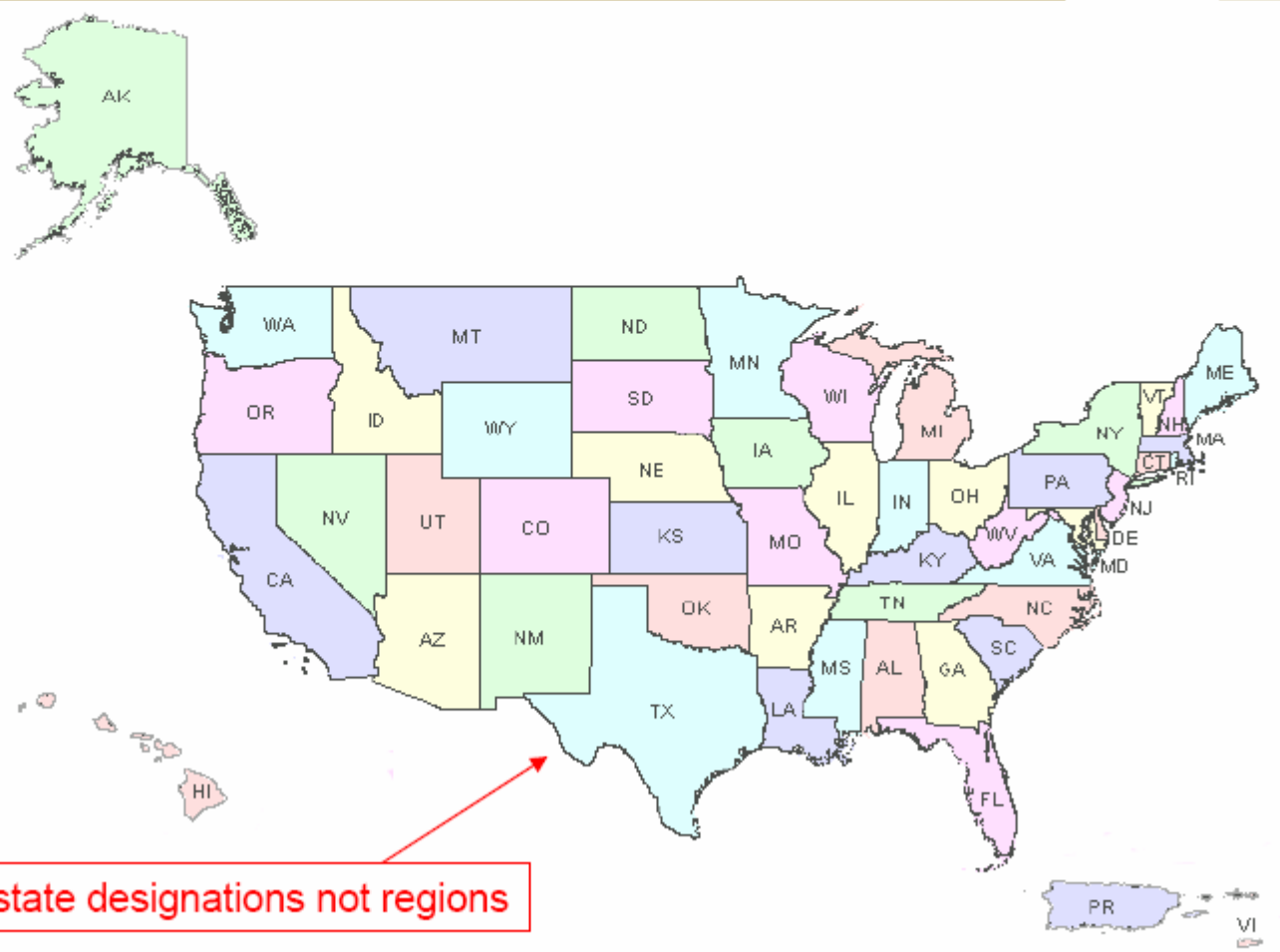
PLANNING APPLICATIONS

RESOURCE LINKS

- AASHTO
- APCO
- FCC
- FCCA
- IMSA
- NIJ CommTech
- NLECTC
- NPSTC
- SAFECOM

SITES OF INTEREST

- SIEC Home
- Inventory Report
- Phase I
- Prim Statewide Public Safety
Communication Systems Plan
- Focusing on Emergency
Communication Systems
Interoperability



Note state designations not regions



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Statewide Interoperability Spectrum

Home 700 Mhz 4.9 GHz SIEC Assets



Colorado

SELECT AREA: -Entire State-

VIEW STATE

PLANNING APPLICATIONS

NEW STATE

RESOURCES

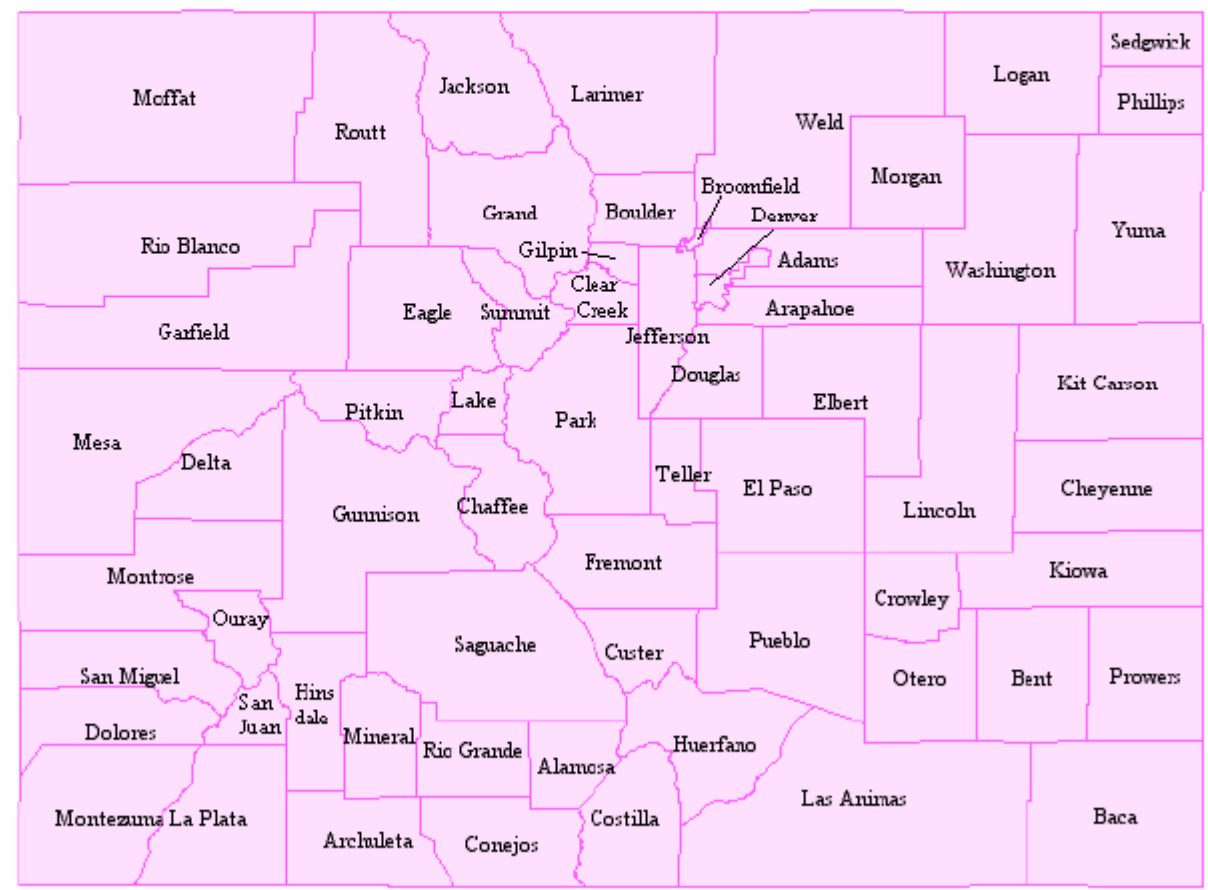
SELECT DATA

- Entity Groups
- Entities
- Sites
- Channel Use

GO

STATE PLAN

- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents





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RESOURCE AND DATABASE SYSTEM

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Statewide Interoperability Spectrum

Home

700 Mhz

800 Mhz

4.9 GHz

SIEC

Assets

Admin



Colorado

SELECT AREA: -Entire State-

VIEW STATE

PLANNING

APPLICATIONS

NEW STATE

RESOURCES

MAPPING

SELECT DATA

- ☐ Entity Groups
- ☒ Entities
- ☐ Sites
- ☐ Channel Use
- ☐ Admin. Info

GO

STATE PLAN






- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents

Colorado
Entity List

County	Entity Name	City	Locations
Statewide	City of Aurora	Aurora	
	City of Colorado Springs	Colorado Springs	
	Colorado Department of Transportation	Denver	
	Colorado Springs Utilities, IRD Network Support	Colorado Springs	
	Colorado State Patrol	Denver	
	Colorado, State of	Denver	
	Longmont, City of	Longmont	
	Montrose, County of	Montrose	
	Morgan, County of	Fort Morgan	
	Parker Fire Protection District	Parker	
	Pitkin, County of	Aspen	
	Weld, County of	Greeley	
	Western RETAC	Montrose	
	testing the sequence3		
Adams	Adams County Sheriff	Brighton	
	Adcom911	Commerce City	
	Brighton Fire Dept	Brighton	
Alamosa	Alamosa City Police	Alamosa	
	Alamosa Sheriff's Dept		
Arapahoe	Arapahoe County Maintenance	Centennial	
	Arapahoe County Sheriff	Littleton	
	Aurora Fire Dept	Aurora	

- [NEW STATE](#)
- [RESOURCES](#)
- [MAPPING](#)

- SELECT DATA**
- ☐ Entity Groups
 - ☐ Entities
 - ☐ Sites
 - ☐ Channel Use
 - ☐ Admin. Info
- GO

- STATE PLAN**
-  Status
 -  Comments
 -  Spectrum Summary
 -  Reports
 -  Plan Documents

Colorado SIEC Channel Allotments

County	Band	Channel	Frequency RX	Tone RX	Frequency TX	Tone TX	Band width	Discipline	Notation
Arapahoe	VHF High Band	1TAC5 MY-TAC			151.137500	136.5	25KHz	Law	Use somewhere
	VHF High Band	1EMS6 MY-EMS			152.007500	136.5	25KHz	EMS	Use everywhere
	VHF High Band	1CAL18 MY-FREQ			155.752500		25KHz	All	
	700 MHz Interop Voice	7CAL59			764.243750		12.5KHz	All	
	700 MHz General Use Voice	51-52			764.318750		12.5KHz	Other	
	700 MHz Interop*	223-224	795.393750		765.393750		12.5KHz		
	700 MHz Interop*	239-240	795.493750		765.493750		12.5KHz		
	800 MHz NPSPAC Band	8CAL90			821.012500		25KHz	All	
Denver	UHF Low (414-419)	4FLAW46D			409.987500		25KHz	Other	
	UHF Low (450-470)	4CAL27D			453.212500		25KHz	Other	
	700 MHz Interop*	143-144	794.893750		764.893750		12.5KHz		
	800 MHz NPSPAC Band	8CAL90			821.012500		25KHz	Other	
Douglas	700 MHz Interop*	23-24	794.143750		764.143750		12.5KHz		
	700 MHz Interop*	119-120	794.743750		764.743750		12.5KHz		

* indicates channels allocated by RPC



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Home

700 Mhz

800 Mhz

4.9 GHz

SIEC

Assets

Admin



Missouri

SELECT AREA: -Entire State-

VIEW STATE

PLANNING

APPLICATIONS

NEW STATE

RESOURCES

MAPPING

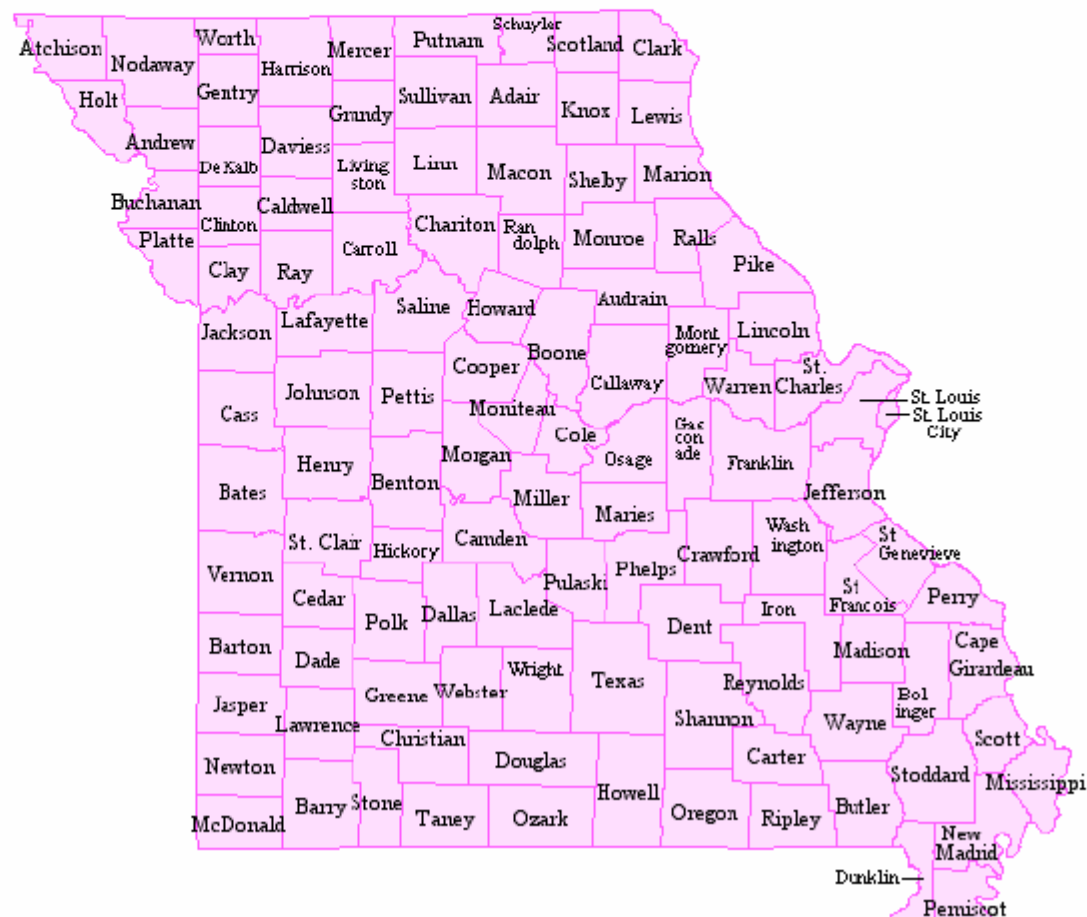
SELECT DATA

- Entity Groups
- Entities
- Sites
- Channel Use
- Admin. Info

GO

STATE PLAN

- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents





Universal Licensing System

[FCC](#) > [WTB](#) > [ULS](#) > [Online Systems](#) > License Search

[FCC Site Map](#)

ULS License

Public Safety 4940-4990 MHz Band License - WPYK916 - State of Missouri

[? HELP](#)

[New Search](#) [Printable Page](#) [Reference Copy](#) [Map License](#)

MAIN		ADMIN		LOCATIONS		FREQUENCIES	
Call Sign		WPYK916		Radio Service		PA - Public Safety 4940-4990 MHz Band	
Status		Active		Auth Type		Regular	
Dates							
Grant		08/29/2003		Expiration		08/29/2013	
Effective		05/19/2004		Cancellation			
Control Points							
1		1510 East Elm, COLE, Jefferson City, MO P: (573)751-3747					
Licensee							
Licensee ID SGIN		L00002485 000		FRN 0002528958 (View Ownership)		Type Governmental Entity	
Licensee							
State of Missouri 1510 East Elm Jefferson City, MO 65101				P:(573)751-3747 F:(573)526-1112 E:devins@msho.state.mo.us			

- SELECT ACTION
- Search Channels
 - Find Application [Filter](#)
 - New Application

GO

SELECTED APPLICATION

FCC 601

GO

Full Print View

- Coordination
- Co-ownership
- Attachments
- Validate
- Status

FCC 601 Main Form

FCC Application for Wireless Telecommunications Bureau Radio Service Authorization

Approved by OMB 3060-0798
See instructions for Public burden estimate

1)Radio Service Code: PW—Public Safety Pool, Conventional	1a) Existing Radio Service Code:
--	----------------------------------

Application Purpose (Select only one): NE—New

- | | | | |
|-------------------|------------------------------|--------------------------------|-------------------------------------|
| 2) NE - New | RO - Renewal Only | CO - Consolidate Call Signs | NT - Required Notifications |
| MD - Modification | RM - Renewal/Modification | WD - Withdrawal of Application | EX - Requests for Extension of Time |
| AM - Amendment | CA - Cancellation of License | DU - Duplicate License | AU - Administrative Update |

3a) If this request is for a Developmental License, Demonstration License, or an STA (Special Temporary Authorization), enter the code and attach the required exhibit as described in the instructions. Otherwise enter N (Not Applicable)

N—Not Applicable

3b) If this request is for Special Temporary Authority due to an emergency situation enter 'Y', otherwise enter 'N'
Refer to Rule 1.915 for an explanation of situations considered to be an emergency.

No

4) If this request is an Ammendment or Withdrawal, enter the file number of the pending application currently on file with the FCC.

File Number

5) If this request is for a Modification, Renewal Only, Renewal/Modification, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update, enter the call sign of the existing FCC license.

Call Sign

6) If this request is for a New, Amendment, Renewal Only or Renewal/Modification, enter the requested authorization expiration date (this item is optional).

MM/DD



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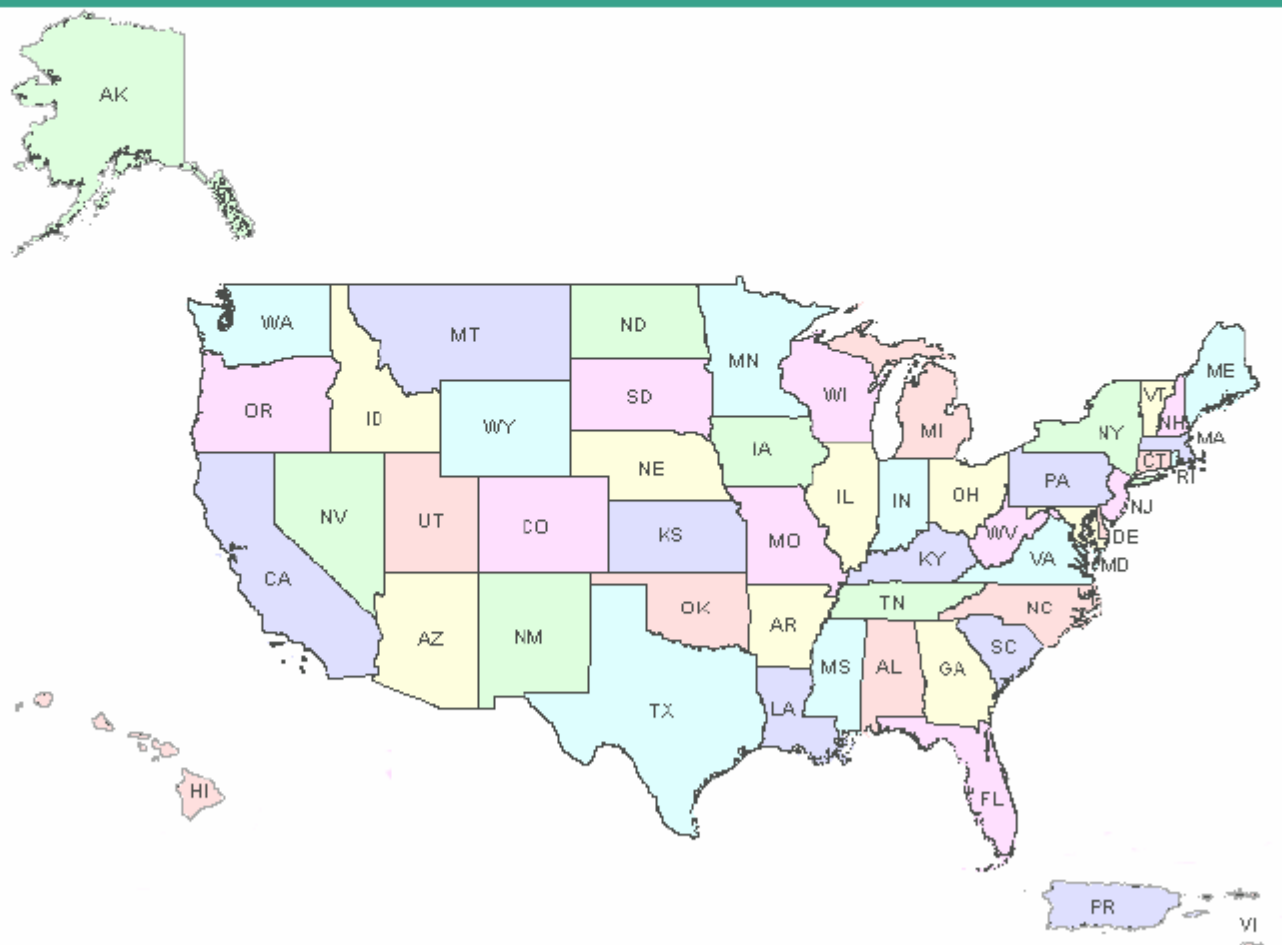
COMPUTER ASSISTED PRE-COORDINATION
RESOURCE AND DATABASE SYSTEM



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[Home](#)[700 Mhz](#)[4.9 GHz](#)[SIEC](#)[Assets](#)[NEW STATE](#)[SELECT DATA](#)[Find Entity](#)[Add Entity](#)[GO](#)[Entity Information](#)[Centers](#)[Sites](#)[Mobile Assets](#)[Attachments](#)[Reports](#)



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Colorado

Entire State

VIEW STATE

NEW STATE

SELECT DATA

Find Entity

Add Entity

GO



Entity Information



Centers



Sites



Mobile Assets



Attachments



Reports

Entity List

County	Entity Name	City
*Statewide	Colorado Department of Transportation	Denver
	Colorado State Patrol	Denver
	Paul's Entity	Denver
Adams	Adams County Sheriff	Brighton
	Adcom911	Commerce City
	Brighton Fire Dept	Brighton
Alamosa	Alamosa City Police	Alamosa
	Alamosa Sheriff's Dept	
Arapahoe	Arapahoe County Maintenance	Centennial
	Arapahoe County Sheriff	Littleton
	Aurora Fire Dept	Aurora
	Brand New Entity	Acres Green
	Cherry Hills Police Dept	Cherry Hills
	Englewood Police Dept	Englewood
	Littleton Fire Dept	Littleton
	South Metro Fire Department	Centennial
Baca	Baca Sheriff's Dept	
Boulder	Boulder County Animal Control	Boulder
	Boulder Police Dept	Boulder
	Colorado University Police	Boulder
	Nederland Sheriff's Office	Nederland
Denver	Denver Police Department, Electronic Engineering Bureau	Denver
	Denver Police Dept	Denver



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Communications Assets Management

Home 700 Mhz 4.9 GHz SIEC Assets



Colorado

Entire State

VIEW STATE

NEW STATE

SELECT DATA

Find Entity

Add Entity

GO



Entity Information



Centers



Sites



Mobile Assets



Attachments



Reports

Colorado Entity Detail

Entity Information

Attention:

Name:

Street:

City:

State:

Zip:

County:

Telephone:

FAX:

Email:

Contact Information

Person (First, Last):

Organization:

Street:

City:

State:

Zip:

Telephone:

FAX:

Email:

Jurisdiction:

Type:

4.9 Participant:

SIEC Participant:

Add



COMPUTER ASSISTED PRE-COORDINATION
RESOURCE AND DATABASE SYSTEM



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Home 700 Mhz 4.9 GHz SIEC Assets

Colorado Entire State VIEW STATE

NEW STATE

SELECT DATA

Find Entity

Add Entity

GO

- Entity Information
- Centers
- Sites
- Mobile Assets
- Attachments
- Reports

Colorado Entity Detail

Entity Information		Contact Information	
Attention:	Jake	Person (First, Last):	Sam Iverson
Name:	Arapahoe County Sheri	Organization:	SAMS Club
Street:	On E. Prince St.	Street:	825 Main St.
City:	Littleton	City:	Denver
State:	Colorado	State:	Colorado
Zip:		Zip:	
County:	Arapahoe	Telephone:	(303) 555-1234
Telephone:	303 555-1212	FAX:	(303) 555-2345
FAX:	303 555-0000	Email:	sams@abc.com
Email:	jake@cybermail.com		
Jurisdiction:		County	
Type:		Law Enforcement	
4.9 Participant:		Yes	
SIEC Participant:		Yes	
<p>Update</p>			

SELECT DATA

Arapahoe County Sheriff

Find Entity
Add Entity
GO

Center Name

Address

City

State

Zip

County

Phone

County Main

Pierce St.

Littleton

Colorado

Arapahoe

Entity Information
Centers
Sites
Mobile Assets
Attachments
Reports

911 PSAP

Law Enforcement

Fire

EMS

Other

Center is 24 hours

Notes

Update



COMPUTER ASSISTED PRE-COORDINATION
RESOURCE AND DATABASE SYSTEM



ommunications Assets Management

Home 700 Mhz 4.9 GHz SIEC Assets

Colorado Entire State VIEW STATE

NEW STATE Center Information Contacts FCC Callsigns Entities using this center Assets Attachments

SELECT DATA

Find Entity
Add Entity

GO

- Entity Information
- Centers
- Sites
- Mobile Assets
- Attachments
- Reports

Arapahoe County Sheriff
County Main Assets

Category Radio

Type Mobile

Count 1

Manufacturer

Make

Model

Version

Acquisition Date
(Year or date yyyy-mm-dd)

Last Upgraded Date
(yyyy-mm-dd)

Estimated Useful Life
(In years)

Age of Asset 1

Remaining Estimated
Useful Life 0

Update



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Communications Assets Management

Home

700 Mhz

4.9 GHz

SIEC

Assets



Colorado

Entire State

VIEW STATE

NEW STATE

[Center Information](#)[Contacts](#)[FCC Callsigns](#)[Entities using this center](#)[Assets](#)[Attachments](#)

SELECT DATA

Find Entity

Add Entity

GO



Entity Information



Centers



Sites



Mobile Assets



Attachments



Reports

Arapahoe County Sheriff County Main Attachments

Delete

File Name

Description

Date Loaded

Loaded By

Update

Upload Attachment

File to upload:

Browse...

Description:

Upload



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Home 700 Mhz 4.9 GHz SIEC Assets



Colorado

Entire State

VIEW STATE

NEW STATE

Site Information

Contacts

Entities using this site

Assets

Attachments

SELECT DATA

Find Entity

Add Entity

GO



Entity Information



Centers



Sites



Mobile Assets



Attachments



Reports

Delete

☐

01-qa-080

?

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File name: 01-qa-0808-property.zip

File type: WinZip File

From: www.teq-services.com

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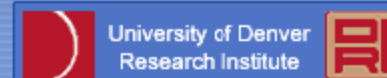
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2004-08-27

Browse...



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COMPUTER ASSISTED PRE-COORDINATION
RESOURCE AND DATABASE SYSTEM

WELCOME TO PUBLIC SAFETY SPECTRUM MANAGEMENT

[Home](#)[700 Mhz](#)[800 Mhz](#)[4.9 GHz](#)[SIEC](#)[Assets](#)

RESOURCE LINKS

- [AASHTO](#)
- [APCO](#)
- [FCC](#)
- [FCCA](#)
- [IMSA](#)
- [NIJ CommTech](#)
- [NLECTC](#)
- [NPSTC](#)
- [SAFECOM](#)

PUBLIC INFORMATION

- [Notices](#)
- [Documents](#)
- [Spectrum](#)
- [Regional Plans](#)

700 MHz Frequency Database System

The FCC has allocated 24 MHz of spectrum for public safety services at 764-776 MHz and 794-806 MHz (referred to as the 700 MHz band). On August 6, 1998, the FCC adopted a First Report and Order and Third Notice of Proposed Rule Making that established a band plan and service rules for this spectrum. That plan was later modified three times with the current Fourth Memorandum Opinion and Order serving as the basis for current spectrum use and rules. The following table breaks out how the spectrum is planned on being allocated.

4.9 GHz Frequency Database System

The telecommunications industry is on the verge of an exciting development in regards to providing classic digital services in the mobile environment. The changes will provide a list of services, applications, and features that will greatly impact the manner in which public safety is able to provide services. The potential of convergence of classic digital services will provide an opportunity previously unprecedented for public safety.

SIEC Database System

Interoperability is an essential communication link with public safety and public service communications systems, which permits units from two or more different entities to interact with one another. It also allows the exchange of information according to a prescribed method to achieve predictable results.

Each state is charged with creating a State Interoperability Executive Committee to address issues related to these issues. This CAPRAD tool provides automated features to assist in management, assignment and application for interoperability channels.

WELCOME
[LOGIN HERE](#)

GO

TRAINING
[LOGIN HERE](#)

GO

00 MHz Public Safety Spectrum

Home 700 Mhz 800 Mhz 4.9 GHz SIEC Assets Admin

REGION 24: Missouri

SELECT AREA: Entire Region- VIEW REGION

PLANNING

- NEW REGION
- RESOURCES
- MAPPING

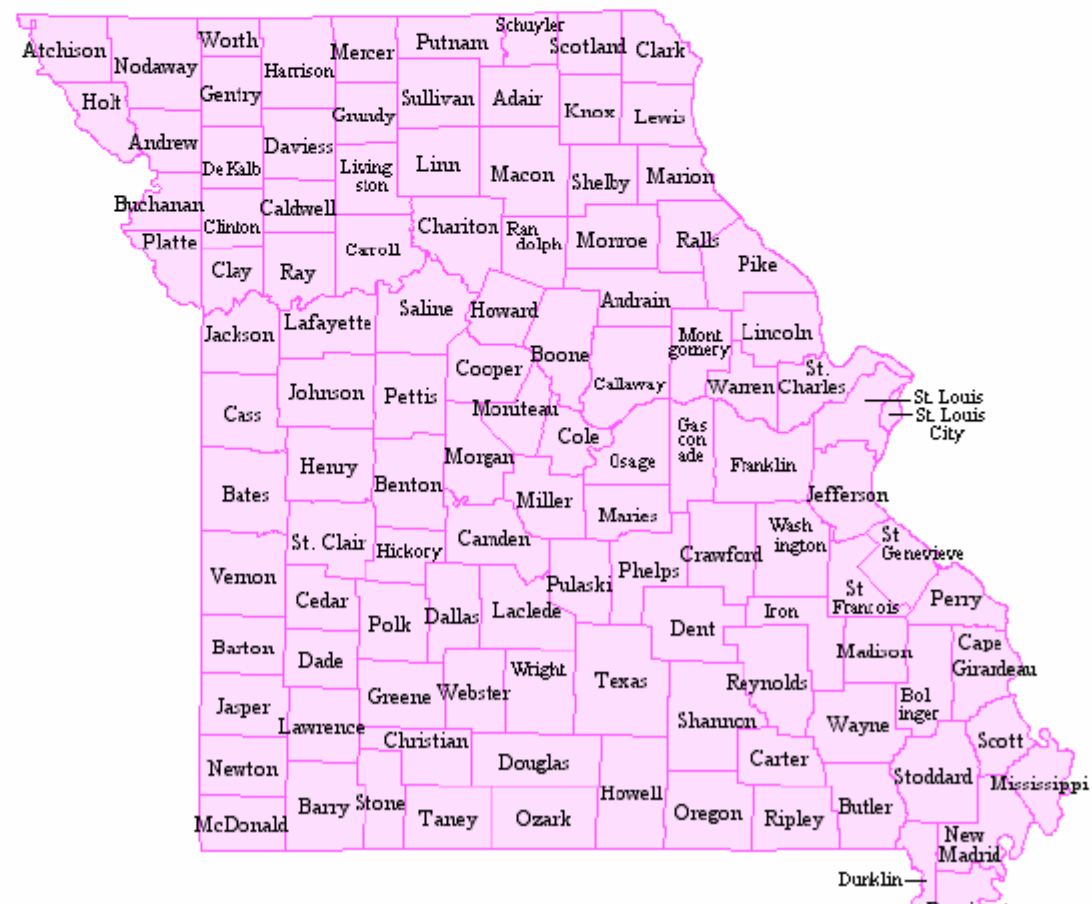
SELECT DATA

Admin. Info

GO

REGIONAL PLAN

- Status
- Comments
- Spectrum Summary
- Reports
- Plan Documents



Region 24 - Missouri				
800MHz Regional Plan Documents				
Restrict	File Name	Description	Date Loaded (Mtn Time)	Loaded By
No	Region_24_821_NPSPAC.pdf	Region 24 821 NPSPAC	12/06/2004 05:15 am	Steve Devine
Yes	Region_24_821_NPSPAC_Plan_Docket_87-112.pdf	Region 24 821 NPSPAC Plan Docket 87-112	12/06/2004 04:15 am	Steve Devine

Questions?